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Data Sheet

August 14, 2026

ADVANTEST

Advantest R6871E Digital multimeter

The Advantest R6871E is a 6.5-digit system DMM with up to 2000 readings per second and 10000-reading internal memory. OEM R6871E/R6871E-DC brochure and characteristic tables list 0.01 percent 1-year DCV accuracy, 0.2 V to 1000 V DCV, 20 Hz to 1 MHz ACV, 2-wire/4-wire ohms to 1000 MOhm, and 10^{10} ohm input impedance. Production DCV/ohms test, automated rack measurement, and general 6.5-digit bench metrology. 10 kohm class internal memory of 10000 readings Maximum Digits Class: 7.5 digits max on some ranges Maximum Digits Class: 7.5 digits max on some ranges Dcv Basic One Year Accuracy: 0.01 percent Maximum Reading Rate: 2000 readings per second From Advantest R6871E / R6871E-DC digital multimeter brochure and published characteristic tables. R6871E-DC omits AC functions.



MODEL

Advantest R6871E

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

R6871E

LISTING

<https://aumictechlabs.com/products/r6871e-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Advantest R6871E is a 6 1/2 digit digital multimeter engineered for high-precision laboratory measurements. It delivers 7 1/2 digit over-range capability and supports DC voltage and current, AC voltage and current, resistance, frequency, and continuity testing. The instrument features floating and guarded input systems with manual, auto, and remote range switching to accommodate diverse measurement scenarios in research, development, and production environments. Technical Specifications Measurement Functions DC Voltage (VDC) and DC Current (IDC) AC Voltage (VAC) and AC Current (IAC) Resistance (Ω) Frequency measurement Continuity

testing Measurement Ranges Maximum voltage: 500V AC; 0.001V DC minimum resolution
Maximum current: 2A AC, 2A DC Maximum resistance: 1000 Ω AC Current resolution: 1 nA, 10 nA, 100 nA Resistance resolution: 0.01 Ω Display and Performance 6 1/2 digit display with 7 1/2 digit over-range capability Maximum display readout: 19999999 7-segment green LED display with 5 × 7 dot matrix LED units indicator Sampling rate: Up to 2,000 times per second Integration measurement system with selectable digit settings (7 1/2, 6 1/2, 5 1/2, 4 1/2)

Accuracy Measurement accuracy is expressed as $\pm$ (% of reading + LS digit value) with auto zero and auto calibration active. Accuracy varies by digit setting and integration time (1 PLC, 5 PLC, 100 PLC). Temperature coefficient for 4-wire Ω measurements: $\pm$ (% of reading + LS digit value)/°C from 0°C to +40°C. Two-wire Ω measurements add 0.02 Ω /°C plus maximum 0.2 Ω offset versus 4-wire measurement.

Key Features GPIB interface with 10 Kbyte data transfer capacity for remote control and system integration Switchable beeper for panel key entry, error, and comparator calculation alerts Dual input system architecture supporting both floating and guarded measurements Typical Applications Research and development testing, production quality assurance, precision laboratory measurements, and automated test systems requiring multi-function capability and GPIB connectivity.

Compatibility & Integration GPIB-equipped for instrument control and data acquisition within automated measurement systems. A specialized R6871E-DC variant limits functions to DC voltage, current, and resistance measurements.

R6871E Characteristics / Specifications

PARAMETER	VALUE
Display Digits	6.5
Maximum Digits Class	7.5 digits max on some ranges
Dcv Minimum Range	0.2 V
Dcv Maximum Range	1000 V
Dcv Ranges	5 ranges 1/10/100 steps
Dcv Minimum Resolution	0.1 uV
Dcv Basic One Year Accuracy	0.01 percent
Acv Minimum Range	200 mV
Acv Maximum Range	500 V
Acv Frequency	20 Hz to 1 MHz
True Rms	Yes
Dci Minimum Range	2000 nA
Dci Maximum Range	2 A
Dci Ranges	4
Aci Minimum Range	2000 uA
Aci Maximum Range	2 A
Resistance Wiring	2 wire and 4 wire
Resistance Minimum Range	10 Ohm
Resistance Maximum Range	1000 MOhm
Resistance Ranges	9
Maximum Reading Rate	2000 readings per second
Nmrr	60 dB
Cmrr	160 dB
Input Impedance	10 ¹⁰ ohm or higher
Internal Memory	10000 measurements

PARAMETER	VALUE
Remote Interface	GPIB
Form Factor	Benchtop
Acv Minimum Resolution	1 uV

Full OEM specifications

Complete technical content extracted from the manufacturer datasheet. Sparse OEM tables are reconstructed as tables below; other text is preserved as paragraphs.

Specifications	
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Nmrr	60 dB
Cmrr	160 dB
Input Impedance	10^10 ohm or higher
Internal Memory	10000 measurements
Remote Interface	GPIO

PARAMETER	VALUE
Form Factor	Benchtop
Acv Minimum Resolution	1 μ V

Notes

From Advantest R6871E / R6871E-DC digital multimeter brochure and published characteristic tables. R6871E-DC omits AC functions.

Available from Aumictech

Used and refurbished unit evaluated in-house. Calibration: Available on request. Used · In stock.

Request a quote: sales@aumictech.com · +1 (484) 841-9341

Aumictech

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Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.